

ABSTRACT OF THE DISCLOSURE

An optically driven actuator, such as a microactuator, is provided in which light is used to cause linear or angular mechanical or micromechanical motion. The actuator includes a solid light-absorbing and expanding member having an internal partially absorbing and partially reflecting cavity; and a waveguide for directing optical energy into the cavity to cause the light-absorbing and expanding member to expand, thereby resulting in displacement of the actuator. The mechanical or micromechanical motion may be used in optical power control elements, switches, shutters and the like, or perform other functions in combined optical waveguide and electrical or electronic systems.